

EAST - [10688961.wsp:1]

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**Drafts**

- BRS:
- Pending
- Active
  - L1: (752) printing and (degree near8 deterioration)
  - L2: (158) L1 and (image near8 deteriorat\$3)
  - L3: (33) L2 and (print\$3 near5 information)
  - L4: (9) 3 and compress\$3
  - L5: (1) 4 and (compression near3 ratio)
  - L6: (81222) "347"/\$.ccls. or "358"/\$.ccls.
  - L7: (20055) L6 and (print\$3 near5 information)
  - L8: (4974) L7 and (print\$3 near5 setting)
  - L9: (838) L8 and (image near3 compress\$3)
  - L10: (97) 9 and (compression near3 ratio)
  - L11: (74) 10 and buffer
  - L12: (38) 10 and buffer
  - L13: (4) 12 and discrimination
- Failed
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  - S1: (187372) print\$3 near3 (device or apparatus or unit)

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DBs: US-PGPUB; USPAT; EPO ☒ Plurals

Default operator: OR ☒ Highlight all hit terms initially

12 and discrimination

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current	Ret	Inventor
1	<input type="checkbox"/>	<input type="checkbox"/>	US 6963412 B1	20051108	41	Information processing apparatus, information proces	358/1.13	358/1.1; 358/1.15		Toda; Masanari
2	<input type="checkbox"/>	<input type="checkbox"/>	US 6674538 B2	20040106	47	Image reproduction system for reproducing a still image f	358/1.15	358/1.13; 358/1.14		Takahashi; Koji
3	<input type="checkbox"/>	<input type="checkbox"/>	US 5881168 A	19990309	58	Image processing apparatus method and system for conve	382/180	358/1.9; 382/173;		Takaoka; Makoto et al.
4	<input type="checkbox"/>	<input type="checkbox"/>	US 5875044 A	19990223	69	Image forming apparatus and method	358/518	358/445; 358/448;		Seto; Kaoru et al.


☐ Drafts

☐ BRS:

☐ Pending

☒ Active

- ☒ L1: (752) printing and (degree near8 deterioration)
- ☒ L2: (158) L1 and (image near8 deteriorat\$3)
- ☒ L3: (33) L2 and (print\$3 near5 information)
- ☒ L4: (9) 3 and compress\$3
- ☒ L5: ((1) 4 and (compression near3 ratio))

☐ Failed

☒ Saved

- ☒ S1: (187372) print\$3 near3 (device or apparatus or unit)
- ☒ S2: (178) S1 and (deteriorat\$3 near8 sett\$3)
- ☒ S3: (2) S2 and "print information"
- ☒ S4: (5) S2 and "print setting"
- ☒ S5: (35) S2 and (print\$3 near5 information)
- ☒ S6: (9) S5 and (image near3 compress\$3)
- ☒ S7: (2) S6 and (degree near8 deterioration)
- ☒ S8: (72421) "347"/\$.ccls. or "358"/\$.ccls.
- ☒ S9: (17242) S8 and (print\$3 near5 information)
- ☒ S10: (4079) S9 and (print\$3 near5 setting)
- ☒ S11: (671) S10 and (image near3 compress\$3)
- ☒ S12: (4) S11 and (degree near8 deterioration)
- ☒ S13: (1) S12 and (deteriorat\$3 near8 excess\$3)
- ☒ S14: (1) S12 and (deteriorat\$3 near8 threshold)

 (a) United States Patent  
 Issued

 (b) Patent No.: US 6,918,706 B2  
 (c) Date of Patent: Jul. 19, 2006

 (54) REDUCING A DIFFERENCE IN PICTURE  
 QUALITY BETWEEN DETERIORATED AND  
 NON-DETERIORATED IMAGES USING A  
 PRINTING APPARATUS

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 (73) Assignee: Canon Kabushiki Kaisha, Tokyo (JP)

 (\*) Notice: Subject to any disclaimer, the term of this  
 patent is estimated to be 20 years from the date of this  
 patent's issuance under 35  
 U.S.C. 154(b) by 9 days.

(21) Appl. No.: 10/913,078

(22) Filed: Oct. 26, 2004

(56) Prior Publication Data

LA 2004/007196 A1 May 6, 2004

(57) Foreign Application Priority Data

Oct. 31, 2002 (JP) 2002-218431

(51) Int. Cl. B41J 11/46; B41J 1/14

(52) U.S. Cl. 400/76; 348/118.4

(53) Field of Search 348/118.4; 400/76; 348/118.4

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Filed by inventor

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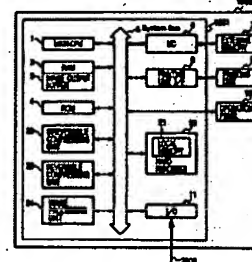
(PD Attorney, Agent, or Firm—Chapman, O'Neil, Hays &amp;

Kahan

(57) ABSTRACT

 A difference of picture quality between a foreground image  
 and a background image is reduced and a good print result  
 is obtained by which a boundary between the foreground image and the  
 background image is conspicuous is obtained. A printing  
 apparatus for compressing main image information which is  
 formed in accordance with input print information, and  
 the compressed image is a background image, and forming  
 a foreground image therein. After the foreground image was  
 drawn on a RAM 2, a degree of image deterioration due to  
 compression of the compressed background image is  
 detected and a compressing process which causes the image  
 deterioration of the degree similar to the detected image  
 deterioration is performed on the whole image.

12 Claims, 9 Drawing Sheets


☒ BRS form ☒ IS&R form ☒ Image ☒ Text ☒ HTML

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current	Ret	Inventor
1	<input type="checkbox"/>	<input type="checkbox"/>	US 6918706 B2	20050719	17	Reducing a difference in picture quality between deteri	400/76	101/128.4		Issshiki, Naohiro

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